Unraveling the Mysteries Behind Desulfurization 362nd Brookhaven Lecture

Liz Seubert

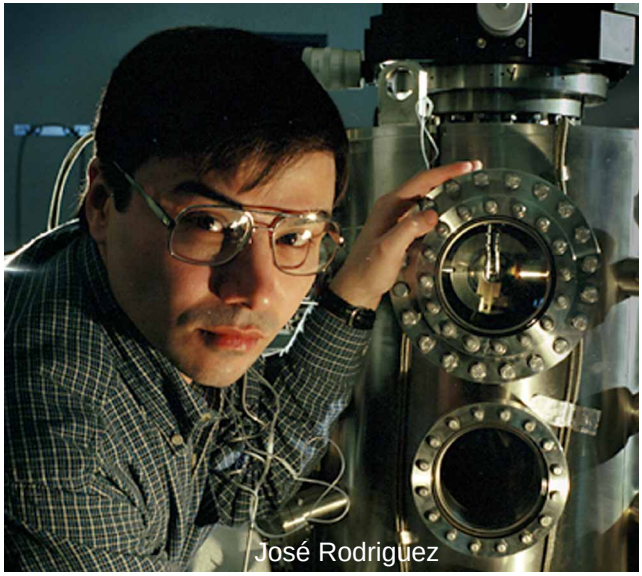
When fossil fuels are burned, sulfur impurities within the fuels become sulfur dioxide, a major air pollutant and a source for the formation of acid rain. Industry uses metal-oxide catalysts in catalytic converters and smokestack scrubbers to help keep sulfur pollutants out of the atmosphere. But new government regulations emphasize the importance of making this process more efficient and less expensive.

To help develop new catalysts based on inexpensive oxides, BNL chemists headed by José Rodriguez, Jan Hrbek, and John Larese have studied the behavior of sulfur dioxide on different surfaces. As a result of their basic research, they were able to collaborate with industry in successfully developing catalysts that destroy sulfur dioxide more effectively, yet present no health or environmental hazard and are inexpensive.

Rodriguez, a chemist in the Chemistry Department, will tell this story in the 362nd Brookhaven Lecture, "Environmental Catalysis: Unraveling the Mysteries Behind Desulfurization." He will give the talk on Wednesday, March 21, in Berkner Hall at 4 p.m., when he will be introduced by Hrbek, also of Chemistry.

At Simon Bolivar University, Venezuela, Rodriguez earned a licenciate and first degree in chemical engineering in 1982, an M.S. in chemistry in 1983, and an M.S. in chemical engineering in 1985. He then moved to Indiana University, where he received his Ph.D. in chemistry in 1988. After two years at Texas A&M University, he joined BNL in 1991 as an assistant chemist. Named Chemist in 1996, he received tenure in 1998.

[Editor's note: Reprinted with permission from the BNL Bulletin - March 16, 2001.]



José Rodriguez